

ASSIGNMENT

We, Mark L. Nelson of Wellesley, Massachusetts, and Glen Rennie of South Weymouth, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

TRUSTEES OF TUFTS COLLEGE

AND

PARATEK PHARMACEUTICALS, INC.

corporations of Massachusetts and Delaware, respectively, having their respective principal places of business at Ballou Hall, 4th Floor, Medford, MA 02155, and 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

TRUSTEES OF TUFTS COLLEGE

AND

PARATEK PHARMACEUTICALS, INC.

their successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

13- SUBSTITUTED METHACYCLINE COMPOUNDS

described in an application

☐ executed by me of even date herewith and about to be filed

☒ Serial No. 09/895,796, filed on June 29, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 4TH day of OCTOBER, 2001.

By: [Signature]

Mark L. Nelson

Commonwealth of Massachusetts)

)ss

County of Middlesex)

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this Oct 11 day of Oct, 2001.

[Signature]
Notary Public

My commission expires: Nov. 17 2006

509

By: Glen Rennie

Commonwealth of Massachusetts)
)ss
County of)

Notary Public
My commission expires: _____

ASSIGNMENT

We, Beena Bhatia, of Arlington, Massachusetts and Laura McIntyre of Cambridge, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

13- SUBSTITUTED METHACYCLINE COMPOUNDS

described in an application

☐ executed by us of even date herewith and about to be filed

☒ Serial No. 09/895,796, filed on June 29, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 3 day of October, 2001.

By: Beena Bhatia
Beena Bhatia

Commonwealth of Massachusetts)
County of Middlesex)ss)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrian Ortiz - 3rd
Notary Public

My commission expires: November 17, 2006

WITNESS my hand and seal this 9 day of October, 2001.

By: Laura McIntyre
Laura McIntyre

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrian Oster Zest
Notary Public

My commission expires: Nov. 17 2006

ASSIGNMENT BY INVENTORS

WE, **Mark L. NELSON**; **Darrell J. KOZA**; and **Glen RENNIE**, of Norfolk, Massachusetts; Westerly, Rhode Island; and Somerville, Massachusetts, respectively, in consideration of One Dollar and other valuable consideration paid to us by:

Trustees of Tufts College

a Corporation of Massachusetts, having its principal place of business at Ballou Hall - 4th Floor, Medford, Massachusetts 02155, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said:

Trustees of Tufts College

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in:

7, 8 AND 9-SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application:

☒ Application No. 10/866220, filed on June 10, 2004


This application claims the benefit of the following provisional application(s):

☐ Provisional Application No.

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said Corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said Corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

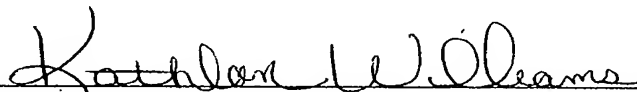
And we do further hereby grant the attorneys/agents of Lahive & Cockfield, LLP, the power to insert on this Assignment the filing date and/or application number of said application.


Mark L. Nelson

Date: December 2, 2004

United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this second day of December, 2004 before me, the
the undersigned notary public, personally appeared Mark L. Nelson
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA Driver's License, to be the person whose name
is signed on the preceding or attached document in my presence.

 (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

Darrell J. Koza
Darrell J. Koza

Date: March 8, 2005

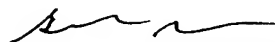
United States of America)
State of Connecticut) ss.: Windham
County of Windham)

On this 8th day of March, 200⁵ before me, the
the undersigned notary public, personally appeared Darrell J. Koza
(name of document signer), proved to me through satisfactory evidence of identification,
which was RI Drivers License, to be the person whose name
is signed on the preceding or attached document in my presence.

C. St. Martin (official signature and seal of notary)

My commission expires

Cindy St. Martin
Notary Public-Connecticut
My Commission Expires
July 31, 2009



Glen Rennie

Date: 2/18/05

United States of America)
Commonwealth of Massachusetts) ss.:
County of Middlesex)

On this 18th day of February, 2005 before me, the
the undersigned notary public, personally appeared Glen Rennie
(name of document signer), proved to me through satisfactory evidence of identification,
which was Mass. Driver's License, to be the person whose name
is signed on the preceding or attached document in my presence.

Heather Randhahn (official signature and seal of notary)

My commission expires 2 January 19, 2012



HEATHER L. RANDHAHN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
January 19, 2012

ASSIGNMENT

I, Mark L. Nelson of Wellesley, MA, in consideration of One Dollar and other valuable consideration paid to me by

PARATEK PHARMACEUTICALS, INC.

a corporation of Massachusetts, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7-SUBSTITUTED FUSED RING TETRACYCLINE COMPOUNDS

described in an application

☐ executed by me of even date herewith and about to be filed

☒ Serial No. 09/852,908, filed on May 10, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And I agree, for myself and my executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 17th day of January, 200~~1~~².

By: Mark L. Nelson

Mark L. Nelson

Commonwealth Massachusetts)

County of Suffolk) ss

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 17 day of January, 200~~1~~².

Edmund A. Cortina - 3rd
Notary Public

My commission expires: November 17, 2006

ASSIGNMENT

I, Laura McIntyre of Cambridge, MA, in consideration of One Dollar and other valuable consideration paid to me by

PARATEK PHARMACEUTICALS, INC.

a corporation of Massachusetts, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7-SUBSTITUTED FUSED RING TETRACYCLINE COMPOUNDS

described in an application

☐ executed by me of even date herewith and about to be filed

☒ Serial No. 09/852,908, filed on May 10, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And I agree, for myself and my executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 10th day of July, 2001.

By: Laura McIntyre
Laura McIntyre

Commonwealth of Massachusetts)
County of Middlesex) ss

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 10 day of July, 2001.

Edmond D. Ortiz, Notary
Notary Public

My commission expires: November 17, 2006

Appendix D

PARATEK PHARMACEUTICALS, INC.

PARATEK PHARMACEUTICALS, INC.

7, 9- SUBSTITUTED TETRACYCLINE COMPOUNDS

☒ Serial No. 09/895,797, filed on June 29, 2001

WITNESS my hand and seal this _____ day of _____, 2001.

My commission expires: _____

By: Roger Frechette

My commission expires: _____

By: Peter Viski

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Mohamed Y. Ismail

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Mohamed Y. Ismail and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Todd E. Bowser

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Laura McIntyre

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Beena Bhatia

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 20 day of November, 2001.

By: Paul Hawkins
Paul Hawkins

Commonwealth of Massachusetts)
County of)ss
)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this 20th day of November, 2001.

Shirane Mohan
Notary Public

My commission expires: 4/2/04

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Laxma Reddy

Commonwealth of Massachusetts)
County of)ss
)

Then personally appeared the above named Laxma Reddy and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Karen Stapleton

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Karen Stapleton and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Tadeusz Warchol

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: Paul Sheahan

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Paul Sheahan and acknowledged the foregoing instrument to be his free act and deed, before me, this ____ day of _____, 2001.

Notary Public

My commission expires: _____

ASSIGNMENT

We, Mark L. Nelson of Wellesley, Massachusetts, Roger Frechette of Reading, Massachusetts, Peter Viski of Brookline, Massachusetts, Mohamed Y. Ismail of Bedford, Massachusetts, Todd E. Bowser of Charlton, Massachusetts, Laura McIntyre of Cambridge, Massachusetts, Beena Bhatia of Arlington, Massachusetts, Paul Hawkins of Cambridge, Massachusetts, Laxma Reddy of Lexington, Massachusetts, Karen Stapleton of Weymouth, Massachusetts, Tadeusz Warchol of Acton, Massachusetts, and Paul Sheahan of Hopkinton, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7, 9- SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application

- ☐ executed by us of even date herewith and about to be filed
- ☒ Serial No. 09/895,797, filed on June 29, 2001

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 2001.

By: Mark L. Nelson

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires:

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Roger Frechette

Commonwealth of Massachusetts)
)ss
County of _____)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 15 day of October, 2001.

By: Peter Viski
Peter Viski

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this 15th day of October, 2001.

Mary Graceffa
Notary Public

My commission expires: March 21, 2008

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Mohamed Y. Ismail

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Mohamed Y. Ismail and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Todd E. Bowser

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Laura McIntyre

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Beena Bhatia

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Paul Hawkins

Commonwealth of Massachusetts)
County of)ss
)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Laxma Reddy

Commonwealth of Massachusetts)
County of)ss
)

Then personally appeared the above named Laxma Reddy and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Karen Stapleton

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Karen Stapleton and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Tadeusz Warchol

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

By: Paul Sheahan

My commission expires: _____

ASSIGNMENT

We, Mark L. Nelson of Wellesley, Massachusetts, Roger Frechette of Reading, Massachusetts, Peter Viski of Brookline, Massachusetts, Mohamed Y. Ismail of Bedford, Massachusetts, Todd E. Bowser of Charlton, Massachusetts, Laura McIntyre of Cambridge, Massachusetts, Beena Bhatia of Arlington, Massachusetts, Paul Hawkins of Cambridge, Massachusetts, Laxma Reddy of Lexington, Massachusetts, Karen Stapleton of Weymouth, Massachusetts, Tadeusz Warchol of Acton, Massachusetts, and Paul Sheahan of Hopkinton, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7, 9- SUBSTITUTED TETRACYCLINE COMPOUNDS

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☒ Serial No. 09/895,797, filed on June 29, 2001

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 17th day of October, 2001.

By: _____

Mark L. Nelson

Commonwealth of Massachusetts)

County of Wellesley)

)ss

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrianne Carter Zist
Notary Public

My commission expires: Nov. 17 2006

WITNESS my hand and seal this 2nd day of October, 2001.

By:

Roger Frechette
Roger Frechette

Commonwealth of Massachusetts)

)ss

County of Middlesex)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrian M. Oster
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____

Peter Viski

Commonwealth of Massachusetts)

)ss

County of _____)

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 5 day of Oct, 2001.

By: M. Y. Ismail
Mohamed Y. Ismail

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Mohamed Y. Ismail and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrianna Oster Ziet
Notary Public

My commission expires: Nov. 17 2006

WITNESS my hand and seal this 9th day of October, 2001.

By: Todd E. Bowser
Todd E. Bowser

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrianna Oster Ziet
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 9th day of October, 2001.

By: Laura McIntyre
Laura McIntyre

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adronian Otter Zest
Notary Public

My commission expires: Nov. 17 2006

WITNESS my hand and seal this 3 day of October, 2001.

By: Beena Bhatia
Beena Bhatia

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adronian Otter Zest
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Paul Hawkins

Commonwealth of Massachusetts)
)ss
County of _____)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 9 day of October, 2001.

By: *Laxma Reddy*
Laxma Reddy

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Laxma Reddy and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrianne Ortiz Zest
Notary Public

My commission expires: Nov. 17 2006

WITNESS my hand and seal this 3 day of October, 2001.

By: Karen Stapleton
Karen Stapleton

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Karen Stapleton and acknowledged the foregoing instrument to be her free act and deed, before me, this 1 day of October, 2001.

Adrianna Oster Zist
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 09 day of October, 2001.

By: Tadeusz Warchol
Tadeusz Warchol

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrianna Oster Zist
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 11th day of October, 2001.

By: Paul G Sheahan
Paul Sheahan

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Paul Sheahan and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adumina Ortiz Gut
Notary Public

My commission expires: Nov 17 2006

ASSIGNMENT

We, Roger Frechette, of Reading, Massachusetts and Todd E. Bowser, of Charlton, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7- AND 9-CARBAMATE, UREA, THIOUREA, THIOCARBAMATE, AND HETEROARYL-AMINO SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application

☐ executed by us of even date herewith and about to be filed

☒ Serial No. 09/823,884, filed on March 30, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 13 day of August, 2001.

By:

Roger Frechette
Roger Frechette

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this 15th day of August, 2001.

Adrienne D. Oster - Seal
Notary Public

My commission expires: Nov. 17, 2006

WITNESS my hand and seal this 15th day of August, 2001.

By: Todd E. Bowser
Todd E. Bowser

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this day of August, 2001.

Adriana D. Ortiz - Esq.
Notary Public

My commission expires: Nov 17, 2006

ASSIGNMENT

We, Mark L. Nelson, of Wellesley, Massachusetts, and Mohamed Y. Ismail, of Bedford, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

TRUSTEES OF TUFTS COLLEGE

AND

PARATEK PHARMACEUTICALS, INC.

corporations of Massachusetts and Delaware, respectively, having their respective principal places of business at Ballou Hall, 4th Floor, Medford, MA 02155, and 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

TRUSTEES OF TUFTS COLLEGE

AND

PARATEK PHARMACEUTICALS, INC.

their successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7- AND 9-CARBAMATE, UREA, THIOUREA, THIOCARBAMATE, AND HETEROARYL-AMINO
SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application

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☒ Serial No. 09/823,884, filed on March 30, 2001

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 15th day of August, 2001.

By: Mark L. Nelson

Mark L. Nelson

Commonwealth of Massachusetts)

County of Middlesex)

)ss

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this 15th day of August, 2001.

Christina D. Orton - Best
Notary Public

My commission expires: Nov. 17, 2006

WITNESS my hand and seal this 15 day of August, 2001.

By: M. Y. Ismail
Mohamed Y. Ismail

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Mohamed Y. Ismail and acknowledged the foregoing instrument to be his free act and deed, before me, this 15th day of August, 2001.

Adriana D. Oster-Zest
Notary Public

My commission expires: Nov. 17, 2006

Appendix F

PARATEK PHARMACEUTICALS, INC.

PARATEK PHARMACEUTICALS, INC.

7- SUBSTITUTED TETRACYCLINE COMPOUNDS

☐ executed by us of even date herewith and about to be filed

☒ Serial No. 09/895,812, filed on June 29, 2001

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 2001.

By: Roger Frechette

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires:

By: Peter Viski

My commission expires:

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Todd E. Bowser

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Beena Bhatia

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
David Messersmith

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named David Messersmith and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Paul Sheahan

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Paul Sheahan and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 19 day of November, 2001.

By: Paul Hawkins
Paul Hawkins

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this day of November 20th, 2001.

Suzanne Mahon
Notary Public

My commission expires: 4/2/04

WITNESS my hand and seal this _____ day of _____, 2001.

By: Atul Verma

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Atul Verma and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires:

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Tadeusz Warchol

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public
My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Upul Bandarage

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Upul Bandarage and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public
My commission expires: _____

ASSIGNMENT

We, Mark L. Nelson, of Wellesley, Massachusetts, and Mohamed Y. Ismail, of Bedford, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

TRUSTEES OF TUFTS COLLEGE

AND

PARATEK PHARMACEUTICALS, INC.

corporations of Massachusetts and Delaware, respectively, having their respective principal places of business at Ballou Hall, 4th Floor, Medford, MA 02155, and 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

TRUSTEES OF TUFTS COLLEGE

AND

PARATEK PHARMACEUTICALS, INC.

their successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 4TH day of October, 2001.

By: 

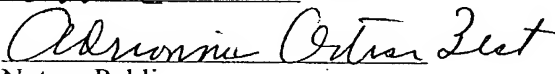
Mark L. Nelson

Commonwealth of Massachusetts)

)ss

County of Wellesley)

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.


Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 5 day of Oct, 2001.

By: M. Y. Ismail
Mohamed Y. Ismail

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Mohamed Y. Ismail and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Administration Test
Notary Public

My commission expires: Nov 17 2006

ASSIGNMENT

We, Roger Frechette of Reading, Massachusetts, Peter Viski of Brookline, Massachusetts, Laura McIntyre of Cambridge, Massachusetts, Todd E. Bowser of Charlton, Massachusetts, Beena Bhatia of Arlington, Massachusetts, David Messersmith of Somerville, Massachusetts, Paul Sheahan of Hopkinton, Massachusetts, Paul Hawkins of Cambridge, Massachusetts, Atul Verma of Arlington, Massachusetts, Tadeusz Warchol, of Acton, Massachusetts and Upul Bandarage of Newton, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

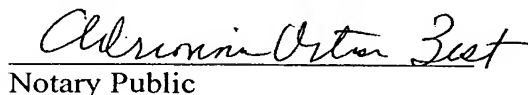
WITNESS my hand and seal this 4th day of October, 2001.

By:


Roger Frechette

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this day of Oct 11, 2001.


Notary Public

My commission expires: Nov 17, 2006

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Peter Viski

Commonwealth of Massachusetts)
)ss
County of _____)

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 9th day of October, 2001.

By: Laura McIntyre
Laura McIntyre

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrianne Orten Zest
Notary Public

My commission expires: Nov. 17, 2006

WITNESS my hand and seal this 9th day of October, 2001.

By: Todd E. Bowser
Todd E. Bowser

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this day of Oct 11, 2001.

Chadronia Otis Zest
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 3 day of October, 2001.

By: Beena Bhatia
Beena Bhatia

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of Oct, 2001.

Chadronia Otis Zest
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
David Messersmith

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named David Messersmith and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 11th day of October, 2001.

By: Paul G Sheahan
Paul Sheahan

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Paul Sheahan and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of Oct 11, 2001.

Adam Oster Ziet
Notary Public

My commission expires: Nov 17 2006

By: Paul Hawkins

My commission expires:

By: Atul Verma
Atul Verma

Almona Otis Zett
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 09 day of October, 2001.

By: [Signature]
Tadeusz Warchol

Commonwealth of Massachusetts)
County of Middlesex)ss

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

[Signature]
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 5 day of October, 2001.

By: [Signature]
Upul Bandarage

Commonwealth of Massachusetts)
County of Middlesex)ss

Then personally appeared the above named Upul Bandarage and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of Oct, 2001.

[Signature]
Notary Public

My commission expires: Nov 17 2006

ASSIGNMENT

We, Roger Frechette of Reading, Massachusetts, Peter Viski of Brookline, Massachusetts, Laura McIntyre of Cambridge, Massachusetts, Todd E. Bowser of Charlton, Massachusetts, Beena Bhatia of Arlington, Massachusetts, David Messersmith of Somerville, Massachusetts, Paul Sheahan of Hopkinton, Massachusetts, Paul Hawkins of Cambridge, Massachusetts, Atul Verma of Arlington, Massachusetts, Tadeusz Warchol, of Acton, Massachusetts and Upul Bandarage of Newton, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

7- SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application

- ☐ executed by us of even date herewith and about to be filed

- ☒ Serial No. 09/895,812, filed on June 29, 2001

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 2001.

By: Roger Frechette

Commonwealth of Massachusetts .)
County of)ss
)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires:

WITNESS my hand and seal this 15 day of October, 2001.

By: Peter Viski
Peter Viski

Commonwealth of Massachusetts)
County of Middlesex)ss

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this 15th day of October, 2001.

Mary Graceffa
Notary Public

My commission expires: March 21, 2008

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Laura McIntyre

Commonwealth of Massachusetts)
County of _____)ss

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: Todd E. Bowser

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: Beena Bhatia

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
David Messersmith

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named David Messersmith and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Paul Sheahan

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Paul Sheahan and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Tadeusz Warchol

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Upul Bandarage

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Upul Bandarage and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

ASSIGNMENT

We, Roger Frechette of Reading, Massachusetts, Peter Viski of Brookline, Massachusetts, Laura McIntyre of Cambridge, Massachusetts, Todd E. Bowser of Charlton, Massachusetts, Beena Bhatia of Arlington, Massachusetts, David Messersmith of Somerville, Massachusetts, Paul Sheahan of Hopkinton, Massachusetts, Paul Hawkins of Cambridge, Massachusetts, Atul Verma of Arlington, Massachusetts, Tadeusz Warchol, of Acton, Massachusetts and Upul Bandarage of Newton, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

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its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 2001.

By: Roger Frechette

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Peter Viski

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Laura McIntyre

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Todd E. Bowser

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Beena Bhatia

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 06 day of March, 2001.

By: 

David Messersmith

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named David Messersmith and acknowledged the foregoing instrument to be his free act and deed, before me, this 6 day March, 2001.


Notary PublicMy commission expires: 4/17/02

WITNESS my hand and seal this 6 day of March, 2002

By: _____

Paul Sheahan

Commonwealth of Massachusetts)
County of _____)ss
)

Then personally appeared the above named Paul Sheahan and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Paul Hawkins

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Atul Verma

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Atul Verma and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Tadeusz Warchol

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Upul Bandarage

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Upul Bandarage and acknowledged the foregoing instrument to be her free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

Appendix G

TRUSTEES OF TUFTS COLLEGE

TRUSTEES OF TUFTS COLLEGE

My commission expires: Dec 23, 2005

WITNESS my hand and seal this 30th day of May, 2003.

By: 

Mark L. Nelson


Commonwealth of Massachusetts)

County of Suffolk)ss

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 30th day of May, 2003.

KATHLEEN WILLIAMS
NOTARY PUBLIC

My Commission Expires December 23, 2005


Notary Public

My commission expires: Dec 23, 2005

ASSIGNMENT

We, Roger Frechette, of Reading, Massachusetts, Peter Viski, of Brookline, Massachusetts, Todd E. Bowser, of Charlton, Massachusetts, Karen Stapleton, of Weymouth, Massachusetts, Paul Hawkins, of Cambridge, Massachusetts, Beena Bhatia, of Arlington, Massachusetts, Atul Verma, of Arlington, Massachusetts, Laura McIntyre, of Cambridge, Massachusetts, and Tadeusz Warchol, of Acton, Massachusetts in consideration of One Dollar and other valuable consideration paid to us by

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PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

9- SUBSTITUTED MINOCYCLINE COMPOUNDS

described in an application

☐ executed by us of even date herewith and about to be filed

☒ Serial No. 09/895,857, filed on June 29, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

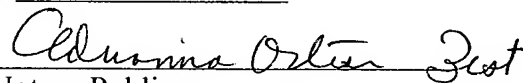
And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 2001.

By: 
Roger Frechette

Commonwealth of Massachusetts)
)ss
County of Middlesex)

Then personally appeared the above named Roger Frechette and acknowledged the foregoing instrument to be his free act and deed, before me, this day of Oct 11, 2001.


Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 27 day of February, 2002.

By: Peter Viski
Peter Viski

Commonwealth of Massachusetts)
County of Middlesex)ss

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this 27 day of February, 2002.

Lauren M. Hammond
Notary Public

My commission expires: _____
LAUREN M. HAMMOND
Notary Public
My Commission Expires
June 23, 2006

WITNESS my hand and seal this _____ day of _____, 2002.

By: _____
Todd E. Bowser

Commonwealth of Massachusetts)
County of _____)ss

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this day of _____, 2002.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: Peter Viski

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Peter Viski and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 3rd day of October, 2001.

By: Todd E. Bowser
Todd E. Bowser

Commonwealth of Massachusetts)
County of *Middlesex*)ss
)

Then personally appeared the above named Todd E. Bowser and acknowledged the foregoing instrument to be his free act and deed, before me, this day of Oct 14, 2001.

Admonia Oster List
Notary Public

My commission expires: Nov. 17, 2006

WITNESS my hand and seal this 10 day of October, 2001.

By: Karen Stapleton
Karen Stapleton

Commonwealth of Massachusetts)
)ss
County of Norfolk)

Then personally appeared the above named Karen Stapleton and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrian Ortiz
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Paul Hawkins

Commonwealth of Massachusetts)
)ss
County of _____)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this _____ day of _____, 2001.

By: _____
Karen Stapleton

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Karen Stapleton and acknowledged the foregoing instrument to be her free act and deed, before me, this 20 day of November, 2001.

Suzanne Melton
Notary Public

My commission expires: 4/2/04

WITNESS my hand and seal this 19 day of November, 2001.

By: Paul Hawkins
Paul Hawkins

Commonwealth of Massachusetts)
)ss
County of)

Then personally appeared the above named Paul Hawkins and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2001.

Notary Public

My commission expires: _____

WITNESS my hand and seal this 3 day of October, 2001.

By: Beena Bhatia
Beena Bhatia

Commonwealth of Massachusetts)
County of Middlesex)ss

Then personally appeared the above named Beena Bhatia and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrian Ortiz-Zest
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 4th day of October, 2001.

By: Atul Verma
Atul Verma

Commonwealth of Massachusetts)
County of Middlesex)ss

Then personally appeared the above named Atul Verma and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrian Ortiz-Zest
Notary Public

My commission expires: Nov 17, 2006

WITNESS my hand and seal this 9th day of October, 2001.

By: Laura McIntyre
Laura McIntyre

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Laura McIntyre and acknowledged the foregoing instrument to be her free act and deed, before me, this 11 day of October, 2001.

Adrianna Ortiz Zet
Notary Public

My commission expires: Nov 17 2006

WITNESS my hand and seal this 9 day of October, 2001.

By: Tadeusz Warchol
Tadeusz Warchol

Commonwealth of Massachusetts)
County of Middlesex)ss
)

Then personally appeared the above named Tadeusz Warchol and acknowledged the foregoing instrument to be his free act and deed, before me, this 11 day of October, 2001.

Adrianna Ortiz Zet
Notary Public

My commission expires: Nov 17 2006

ASSIGNMENT

I, David Messersmith, of Somerville, Massachusetts in consideration of One Dollar and other valuable consideration paid to me by _____

PARATEK PHARMACEUTICALS, INC.

a corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, MA 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

PARATEK PHARMACEUTICALS, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

9- SUBSTITUTED MINOCYCLINE COMPOUNDS

described in an application

- ☐ executed by us of even date herewith and about to be filed
☒ Serial No. 09/895,857, filed on June 29, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And I agree, for myself and my executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 06 day of March, 2002.

By:

~~David Messersmith~~

Commonwealth of Massachusetts)
)ss
County of *Middlesex*)

Then personally appeared the above named David Messersmith and acknowledged the foregoing instrument to be his free act and deed, before me, this day of 6 day of March 2002.

Notary Public

My commission expires: 4/12/02

ASSIGNMENT BY INVENTORS

WE, **Mark L. NELSON**; **Darrell J. KOZA**; and **Glen RENNIE**, of Norfolk, Massachusetts; Westerly, Rhode Island; and Somerville, Massachusetts, respectively, in consideration of One Dollar and other valuable consideration paid to us by:

Trustees of Tufts College

a Corporation of Massachusetts, having its principal place of business at Ballou Hall - 4th Floor, Medford, Massachusetts 02155, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said:

Trustees of Tufts College

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in:

7, 8 AND 9-SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application:

☒ Application No. 10/866220, filed on June 10, 2004

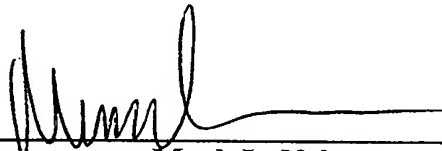
This application claims the benefit of the following provisional application(s):

☐ Provisional Application No.

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said Corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said Corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

And we do further hereby grant the attorneys/agents of Lahive & Cockfield, LLP, the power to insert on this Assignment the filing date and/or application number of said application.



Mark L. Nelson

Date: December 2, 2004

United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this second day of December, 2004 before me, the
the undersigned notary public, personally appeared Mark L. Nelson
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA Driver's License, to be the person whose name
is signed on the preceding or attached document in my presence.

Kathleen W. Williams (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

Darrell J. Koza
Darrell J. Koza

Date: March 8, 2005

United States of America)
State of Connecticut) ss.: Windham
County of Windham)

On this 8th day of March, 200⁵ before me, the
the undersigned notary public, personally appeared Darrell J. Koza
(name of document signer), proved to me through satisfactory evidence of identification,
which was RI Drivers License, to be the person whose name
is signed on the preceding or attached document in my presence.

C. St. Martin (official signature and seal of notary)

My commission expires

Cindy St. Martin
Notary Public-Connecticut
My Commission Expires
July 31, 2009



Glen Rennie

Date: 2/18/05

United States of America)
Commonwealth of Massachusetts) ss.:
County of Middlesex)

On this 18th day of February, 2005 before me, the
the undersigned notary public, personally appeared Glen Rennie
(name of document signer), proved to me through satisfactory evidence of identification,
which was Mass. Driver's License, to be the person whose name
is signed on the preceding or attached document in my presence.

Heather Randhahn (official signature and seal of notary)

My commission expires 2 January 19, 2012



HEATHER L. RANDHAHN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
January 19, 2012

WITNESS my hand and seal this 14th day of June, 2002.

By: Mark L. Nelson
Mark L. Nelson

Commonwealth of Massachusetts)
County of Suffolk)ss
)

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this 14th day of June, 2002.

Kathleen Williams
Notary Public

My commission expires: 12-23-05

ASSIGNMENT BY INVENTORS

WE, **Mark L. NELSON**; **Darrell J. KOZA**; and **Glen RENNIE**, of Norfolk, Massachusetts; Westerly, Rhode Island; and Somerville, Massachusetts, respectively, in consideration of One Dollar and other valuable consideration paid to us by:

Trustees of Tufts College

a Corporation of Massachusetts, having its principal place of business at Ballou Hall - 4th Floor, Medford, Massachusetts 02155, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said:

Trustees of Tufts College

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in:

7, 8 AND 9-SUBSTITUTED TETRACYCLINE COMPOUNDS

described in an application:

☒ Application No. 10/866220, filed on June 10, 2004

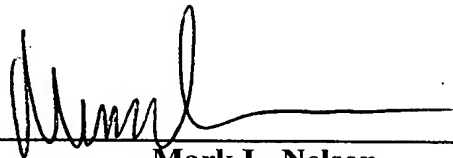
This application claims the benefit of the following provisional application(s):

☐ Provisional Application No.

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said Corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said Corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

And we do further hereby grant the attorneys/agents of Lahive & Cockfield, LLP, the power to insert on this Assignment the filing date and/or application number of said application.

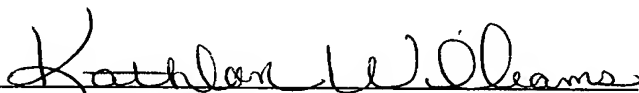


Mark L. Nelson

Date: December 2, 2004

United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this second day of December, 2004 before me, the
the undersigned notary public, personally appeared Mark L. Nelson
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA Driver's License, to be the person whose name
is signed on the preceding or attached document in my presence.

 (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

Darrell J. Koza
Darrell J. Koza

Date: March 8, 2005

United States of America)
State of Connecticut) ss.: Windham
County of Windham)

On this 8th day of March, 200⁵ before me, the
the undersigned notary public, personally appeared Darrell J. Koza
(name of document signer), proved to me through satisfactory evidence of identification,
which was RI Drivers License, to be the person whose name
is signed on the preceding or attached document in my presence.

C. St. Martin (official signature and seal of notary)

My commission expires _____

Cindy St. Martin
Notary Public-Connecticut
My Commission Expires
July 31, 2009

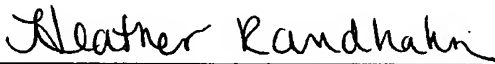


Glen Rennie

Date: 2/18/05

United States of America)
Commonwealth of Massachusetts) ss.:
County of Middlesex)

On this 18th day of February, 2005 before me, the
the undersigned notary public, personally appeared Glen Rennie
(name of document signer), proved to me through satisfactory evidence of identification,
which was Mass. Driver's License, to be the person whose name
is signed on the preceding or attached document in my presence.



(official signature and seal of notary)

My commission expires 2 January 19, 2012



HEATHER L. RANDHAHN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
January 19, 2012

Full name of first inventor Mark L. NELSON	
Sole or first inventor's signature	Date
Residence Norfolk, Massachusetts	
Citizenship US	
Mailing Address 47 Barnstable Road Norfolk, Massachusetts 02056	

Full name of second inventor Darrell J. KOZA	
Second inventor's signature <i>Darrell J. Koza</i>	Date 3/5/05
Residence Westerly, Rhode Island	
Citizenship US	
Mailing Address 16 Ledward Avenue Westerly, Rhode Island 02891	

Full name of third inventor Glen RENNIE	
Third inventor's signature	Date
Residence Somerville, Massachusetts	
Citizenship US	
Mailing Address 39 Simpson Avenue Somerville, Massachusetts 02144	

Darrell J. Koza
Darrell J. Koza

Date: March 8, 2005

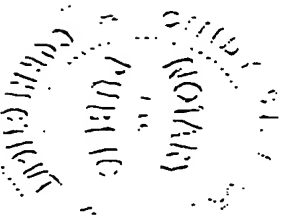
United States of America)
State of Connecticut) ss.: Windham
County of Windham)

On this 8th day of March, 200⁵ before me, the
the undersigned notary public, personally appeared Darrell J. Koza
(name of document signer), proved to me through satisfactory evidence of identification,
which was RI Drivers License, to be the person whose name
is signed on the preceding or attached document in my presence.

C. St. Martin (official signature and seal of notary)

My commission expires

Cindy St. Martin
Notary Public-Connecticut
My Commission Expires
July 31, 2009



ASSIGNMENT

Appendix L

We, Stuart B. Levy of Boston, Massachusetts and Mark L. Nelson of Wellesley, Massachusetts, in consideration of One Dollar and other valuable consideration paid to us by

TRUSTEES OF TUFTS COLLEGE

a corporation of Massachusetts, having its principal place of business at Ballou Hall, 4th Floor, Medford, Massachusetts 02155, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

TRUSTEES OF TUFTS COLLEGE

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

TETRACYCLINE COMPOUNDS FOR TREATMENT OF *CRYPTOSPORIDIUM PARVUM* RELATED DISORDERS described in an application

☐ executed by us of even date herewith and about to be filed

☒ Serial No. 09/768,189, filed on January 23, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 30th day of May, 2003.

By: 

Stuart B. Levy

Commonwealth of Massachusetts)

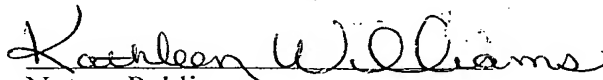
)ss

County of Suffolk)

Then personally appeared the above named Stuart B. Levy and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 30th day of May, 2003.

KATHLEEN WILLIAMS
NOTARY PUBLIC

My Commission Expires December 23, 2005


Notary Public

My commission expires: Dec 23, 2005

WITNESS my hand and seal this 30th day of May, 2003.

By: 

Mark L. Nelson

Commonwealth of Massachusetts)

)ss

County of Suffolk)

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 30th day of May, 2003.

KATHLEEN WILLIAMS

NOTARY PUBLIC

My Commission Expires December 23, 2005



Notary Public

My commission expires: Dec 23, 2005

ASSIGNMENT BY INVENTORS

WE, Michael DRAPER and Mark L. NELSON, of Plaistow, New Hampshire and Norfolk, Massachusetts, respectively, in consideration of One Dollar and other valuable consideration paid to us by

Paratek Pharmaceuticals, Inc.

a Corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, Massachusetts 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Paratek Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

SUBSTITUTED TETRACYCLINE COMPOUNDS
FOR THE TREATMENT OF MALARIA

described in an application

☐ Executed by us of even date herewith and about to be filed

or

☒ Application No. 10/692563, filed on October 24, 2003

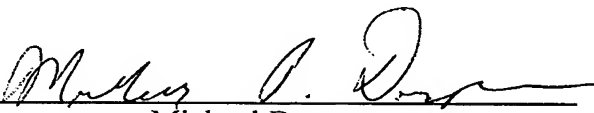
This application claims the benefit of the following provisional application(s):

☒ Application No. 60/421259, filed on October 24, 2002
Application No. 60/286193, filed on April 24, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said Corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said Corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

And we do further hereby grant the attorneys/agents of Lahive & Cockfield, LLP, the power to insert on this Assignment the filing date and/or application number of said application.


Michael Draper

Date:

May 7, 2004

United States of America)

Commonwealth of Massachusetts) ss.:

County of

Suffolk

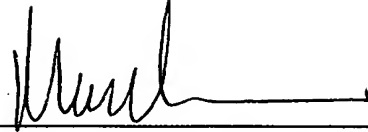
On this 7th day of May, 2004 before me, the
the undersigned notary public, personally appeared Michael Draper
(name of document signer), proved to me through satisfactory evidence of identification,
which was personally known to me, to be the person whose name
is signed on the preceding or attached document in my presence.

 (official signature and seal of notary)

My commission expires

December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005



Mark L. Nelson

Date: May 7, 2004

~~Commonwealth~~ United States of America)
State of Massachusetts) ss.:
County of Suffolk)

On this 7th day of May, 2004 before me, the
the undersigned notary public, personally appeared Mark L. Nelson
(name of document signer), proved to me through satisfactory evidence of identification,
which was personally known to me, to be the person whose name
is signed on the preceding or attached document in my presence.

Kathleen Williams (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

ASSIGNMENT

GLAXO GROUP LIMITED, a company incorporated in England and Wales (Registration No. 305979) and having its registered office at Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN, England, (hereinafter called the "Assignor") for good and valuable consideration, receipt of which is hereby acknowledged from PARATEK PHARMACEUTICAL INC, a company incorporated in the State of Delaware with primary place of business is 75 Kneeland Street, Boston, Massachusetts 02111, USA (hereinafter called the "Assignee") does hereby sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in the subject matter described and claimed in the applications and Letters Patent listed as follows for:

7-PYROLLO-9-AMINOACYL TETRACYCLINE COMPOUNDS AND METHODS OF USE THEREOF

for which a priority application EP01500205.8 was filed on 02 August 2001 in the European Patent Office and PCT international patent application, PCT/US02/24475 was filed on August 2, 2002 in the United States receiving office, and the intentions and any of them therein set forth and described, and any and all Letters Patent of the United States which may be granted thereon or therefor including any continuation, division, renewal, substitute, reissue or extension thereof or any legal equivalent thereof.

For the above consideration, Assignor hereby agrees promptly upon request of the Assignee, its successors or assigns, to execute and deliver without further compensation any continuation or reissue, or other papers which may be necessary or desirable fully to secure to the Assignee, its successors and assigns, the inventions and any of them described in said application and all patent rights therein, in the United States and in any country foreign thereto

IN WITNESS WHERETO, the Assignor executes this Assignment as of this 25th day of April 2003.

ASSIGNOR: GLAXO GROUP LIMITED

By Attorney:




David J. Levy

State of North Carolina
Durham County

I, Elaine Martens, a Notary Public for said County and State, do hereby certify that David J. LEVY personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the 25th day of April 2003



Notary Public: Elaine Martens

My Commission expires on February 5, 2006



ASSIGNMENT

GLAXO GROUP LIMITED, a company incorporated in England and Wales (Registration No. 305979) and having its registered office at Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN, England, (hereinafter called the "Assignor") for good and valuable consideration, receipt of which is hereby acknowledged from PARATEK PHARMACEUTICAL INC, a company corporated in the State of Delaware with primary place of business is 75 Kneeland Street, Boston, Massachusetts 02111, USA (hereinafter called the "Assignee") does hereby sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in the subject matter described and claimed in the applications and Letters Patent listed as follows for:

7-PYROLLO-9-AMINOACYL TETRACYCLINE COMPOUNDS AND METHODS OF USE THEREOF

for which a priority application EP01500205.8 was filed on 02 August 2001 in the European Patent Office and PCT international patent application, PCT/US02/24475 was filed on August 2, 2002 in the United States receiving office, and the intentions and any of them therein set forth and described, and any and all Letters Patent of the United States which may be granted thereon or therefor including any continuation, division, renewal, substitute, reissue or extension thereof or any legal equivalent thereof.

For the above consideration, Assignor hereby agrees promptly upon request of the Assignee, its successors or assigns, to execute and deliver without further compensation any continuation or reissue, or other papers which may be necessary or desirable fully to secure to the Assignee, its successors and assigns, the inventions and any of them described in said application and all patent rights therein, in the United States and in any country foreign thereto

IN WITNESS WHERETO, the Assignor executes this Assignment as of this 25th day of April 2003.

ASSIGNOR: GLAXO GROUP LIMITED

By Attorney:



David J. Levy

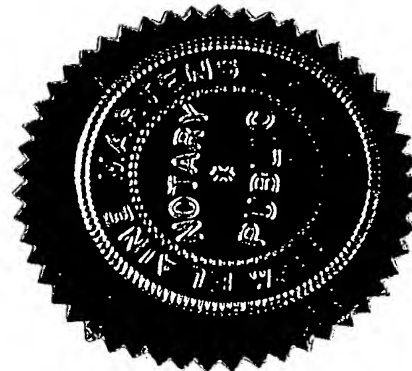
State of North Carolina
Durham County

I, Elaine Martens, a Notary Public for said County and State, do hereby certify that David J. LEVY personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the 25th day of April 2003



Notary Public: Elaine Martens
My Commission expires on February 5, 2006



Assignment

WHEREAS, I/we **Sophie HUSS and Jose M. FIANDOR** both citizens of Spain and each residing in Madrid, Spain has/have invented or discovered certain improvements in **7-PYROLLO-9-AMINOACYL TETRACYCLINE COMPOUNDS AND METHODS OF USE THEREOF** hereinafter referred to as said invention and improvements for which a priority application **EP01500205.8** was filed on **02 August 2001** in the European Patent Office and for which a PCT international application is now being filed designating the United States of America and naming assignor as inventor, and in the United States only applicant/inventor. I/We hereby authorize and request that the filing date and application number of said PCT application, when known be inserted in parentheses below.

(PCT /US02/24475 filed August 2, 2002)

WHEREAS, **GLAXO GROUP LIMITED.**, a company incorporated in England, whose registered office is at Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex, UB6 0NN, England, is desirous of acquiring the whole right, title and interest in and to said invention and improvements, and in and to any applications for said invention and improvements and any Letters Patent to be obtained therefor, in all countries, including the United States, its territories and possessions;

NOW, THEREFORE, to all whom it may concern, be it known that I/we **Sophie HUSS and Jose M. FIANDOR** for good and valuable consideration unto me/us moving, the receipt whereof is hereby acknowledged, have sold, assigned and transferred, and by these presents do sell, assign and transfer my/our whole right, title and interest in and to said invention and improvements to said **GLAXO GROUP LIMITED**, throughout the United States of America, its territories and possessions, and in and to said application and any extensions, reissues, continuations, continuations-in-part, and any divisions thereof, and in and to any and all Letters Patent of the United States of America;

AND, my/our whole right, title and interest in and to said invention and improvements to **GLAXO GROUP LIMITED**, in all other countries throughout the world, and in and to any applications in said other countries, and continuations-in-part, patents of addition, revalidation patents, patents of importation,

all other countries which may be granted on said invention and improvements including any priority rights under the International Convention.

AND, I/we do hereby authorize and request the issue of any Letters Patent in the respective areas referred to, to said **GLAXO GROUP LIMITED**, as assignees of my/our whole right, title and interest in and to the same for the sole use and behoof of the said assignees, their successors and assigns as their interests appear herein;

AND, I/we warrant that I/we have not knowingly conveyed to others any right in said invention, improvements, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing said invention and improvements and that I/we have good right to assign the same to **GLAXO GROUP LIMITED**;

AND, I/we the undersigned **Sophie HUSS** and **Jose M. FIANDOR** for the consideration aforesaid, do hereby agree that I/we or my/our executors or legal representatives, will provide information and make, execute and deliver any and all other instruments in writing, and any and all further acts, application papers, affidavits, assignments and other documents which may be necessary or desirable to more effectually secure to and vest in said **GLAXO GROUP LIMITED**, their successors and assigns, the whole right, title and interest in and to the said invention and improvements, applications, Letters Patent, rights, title and interest hereby sold, assigned and conveyed, or intended so to be. *This assignment should be deemed effective as of 02 August 2001.*

IN WITNESS WHEREOF, I/we have hereunto set my/our hand(s) and affixed my/our seal(s) on the date(s) indicated below.

X Sophie HUSS X 24-7-2002
Inventor: Sophie HUSS Date

Witness: ENRIQUE M. ARRIBAS
Print Name

Witness: [Signature]
Signature

IN WITNESS WHEREOF, I/we have hereunto set my/our hand(s) and affixed my/our seal(s) on the
date(s) indicated below.

X Fiandor X 24.7.2002
Inventor: Jose M. FIANDOR Date

Witness: JOSE MIGUEL COTERÓN
Print Name

Witness: Jose M
Signature

Assignment

WHEREAS, I/we **Sophie HUSS and Jose M. FIANDOR** both citizens of Spain and each residing in Madrid, Spain has/have invented or discovered certain improvements in **7-PYROLLO-9-AMINOACYL TETRACYCLINE COMPOUNDS AND METHODS OF USE THEREOF** hereinafter referred to as said invention and improvements for which a priority application **EP01500205.8** was filed on **02 August 2001** in the European Patent Office and for which a PCT international application is now being filed designating the United States of America and naming assignor as inventor, and in the United States only applicant/inventor. I/We hereby authorize and request that the filing date and application number of said PCT application, when known be inserted in parentheses below.

(PCT /US02/24475 filed August 2, 2002)

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NOW, THEREFORE, to all whom it may concern, be it known that I/we **Sophie HUSS and Jose M. FIANDOR** for good and valuable consideration unto me/us moving, the receipt whereof is hereby acknowledged, have sold, assigned and transferred, and by these presents do sell, assign and transfer my/our whole right, title and interest in and to said invention and improvements to said **GLAXO GROUP LIMITED**, throughout the United States of America, its territories and possessions, and in and to said application and any extensions, reissues, continuations, continuations-in-part, and any divisions thereof, and in and to any and all Letters Patent of the United States of America;

AND, my/our whole right, title and interest in and to said invention and improvements to **GLAXO GROUP LIMITED**, in all other countries throughout the world, and in and to any applications in said other countries, and continuations-in-part, patents of addition, revalidation patents, patents of importation,

all other countries which may be granted on said invention and improvements including any priority rights under the International Convention.

AND, I/we do hereby authorize and request the issue of any Letters Patent in the respective areas referred to, to said **GLAXO GROUP LIMITED**, as assignees of my/our whole right, title and interest in and to the same for the sole use and behoof of the said assignees, their successors and assigns as their interests appear herein;

AND, I/we warrant that I/we have not knowingly conveyed to others any right in said invention, improvements, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing said invention and improvements and that I/we have good right to assign the same to **GLAXO GROUP LIMITED**;

AND, I/we the undersigned **Sophie HUSS and Jose M. FIANDOR** for the consideration aforesaid, do hereby agree that I/we or my/our executors or legal representatives, will provide information and make, execute and deliver any and all other instruments in writing, and any and all further acts, application papers, affidavits, assignments and other documents which may be necessary or desirable to more effectually secure to and vest in said **GLAXO GROUP LIMITED**, their successors and assigns, the whole right, title and interest in and to the said invention and improvements, applications, Letters Patent, rights, title and interest hereby sold, assigned and conveyed, or intended so to be. *This assignment should be deemed effective as of 02 August 2001.*

IN WITNESS WHEREOF, I/we have hereunto set my/our hand(s) and affixed my/our seal(s) on the date(s) indicated below.

X Sophie HUSS X 24-7-2002
Inventor: Sophie HUSS Date

Witness: ENRIQUE M. ARRIAS
Print Name

Witness: [Signature]
Signature

IN WITNESS WHEREOF, I/we have hereunto set my/our hand(s) and affixed my/our seal(s) on the
date(s) indicated below.

X Fiandor X 24.7.2002
Inventor: Jose M. FIANDOR Date

Witness: JOSE MIGUEL COTERÓN
Print Name

Witness: Jose M
Signature

ASSIGNMENT BY INVENTORS

WE, Mark L. NELSON; Roger FRECHETTE; Mohamed Y. ISMAIL; Laura HONEYMAN; Todd BOWSER; and Beena BHATIA, of Norfolk, Massachusetts; Reading, Massachusetts; Bedford, Massachusetts; Roslindale, Massachusetts; Charlton, Massachusetts; and Mansfield, Massachusetts, respectively, in consideration of One Dollar and other valuable consideration paid to us by

Paratek Pharmaceuticals, Inc.

a Corporation of Delaware, having its principal place of business at 75 Kneeland Street, Boston, Massachusetts 02111, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Paratek Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

9-AMINOMETHYL SUBSTITUTED MINOCYCLINE COMPOUNDS

described in an application

☐ Executed by us of even date herewith and about to be filed

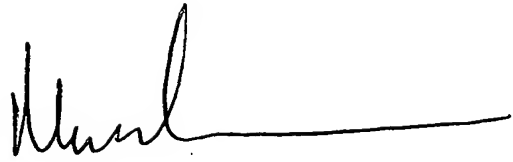
or

☒ Application No. 10/786881, filed on February 24, 2004

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said Corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said Corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

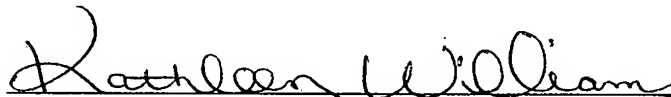
And we do further hereby grant the attorneys/agents of Lahive & Cockfield, LLP, the power to insert on this Assignment the filing date and/or application number of said application.



Mark L. Nelson

Date: Sept 7, 2004United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this 7th day of September, 2004 before me, the
the undersigned notary public, personally appeared Mark L. Nelson
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA Drivers License, to be the person whose name
is signed on the preceding or attached document in my presence.

 (official signature and seal of notary)My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

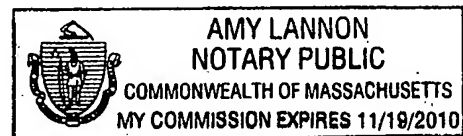
Roger Frechette
Roger Frechette
 Roger Frechette

Date: September 17, 2004

United States of America)
 Commonwealth of Massachusetts) ss.:
 County of Middlesex

On this 17 day of September, 2004 before me, the
 the undersigned notary public, personally appeared Roger Frechette
 (name of document signer), proved to me through satisfactory evidence of identification,
 which was MA State Licence, to be the person whose name
 is signed on the preceding or attached document in my presence.

Amy Lannon (official signature and seal of notary)
 My commission expires 11/19/2010



M. Y. Ismail
Mohamed Y. Ismail

Date: 9/7/04

United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this 7th day of September, 2004 before me, the
the undersigned notary public, personally appeared Mohamed Y. Ismail
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA D.L. S24391848, to be the person whose name
is signed on the preceding or attached document in my presence.

Kathleen Williams (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

Laura Honeyman
 Laura Honeyman

Date: Sept 7, 2004

United States of America)
 Commonwealth of Massachusetts) ss.:
 County of Suffolk)

On this 7th day of September, 2004 before me, the
 the undersigned notary public, personally appeared Laura Honeyman
 (name of document signer), proved to me through satisfactory evidence of identification,
 which was MA Drivers License, to be the person whose name
 is signed on the preceding or attached document in my presence.

Kathleen Williams (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
 My Commission Expires December 23, 2005

Todd Bowser
Todd Bowser

Date: Sept 7 2004

United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this 7th day of September, 2004 before me, the
the undersigned notary public, personally appeared Todd Bowser
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA Drivers License to be the person whose name
is signed on the preceding or attached document in my presence.

Kathleen Williams (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

Beena Bhatia

Beena Bhatia

Date: 09/07/04

United States of America)
Commonwealth of Massachusetts) ss.:
County of Suffolk)

On this 7th day of September, 2004 before me, the
the undersigned notary public, personally appeared Beena Bhatia
(name of document signer), proved to me through satisfactory evidence of identification,
which was MA Drivers License, to be the person whose name
is signed on the preceding or attached document in my presence.

Kathleen Williams (official signature and seal of notary)

My commission expires December 23, 2005

KATHLEEN WILLIAMS
NOTARY PUBLIC
My Commission Expires December 23, 2005

Appendix P

PARATEK PHARMACEUTICALS, INC.

PARATEK PHARMACEUTICALS, INC.

SUBSTITUTED TETRACYCLINE COMPOUNDS AS SYNERGISTIC ANTIFUNGAL AGENTS

☐ executed by us of even date herewith and about to be filed

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 14th day of June, 2002.

By: Michael P Draper
Michael Draper

Commonwealth of Massachusetts)
County of Suffolk)ss

Then personally appeared the above named Michael Draper and acknowledged the foregoing instrument to be his free act and deed, before me, this 14th day of June, 2002.

Kashlean Williams
Notary Public

My commission expires: 12-23-05

WITNESS my hand and seal this 14th day of June, 2002.

By: Mark L. Nelson
Mark L. Nelson

Commonwealth of Massachusetts)
County of Suffolk)ss
)

Then personally appeared the above named Mark L. Nelson and acknowledged the foregoing instrument to be his free act and deed, before me, this 14th day of June, 2002.

Kathleen Williams
Notary Public

My commission expires: 12-23-05